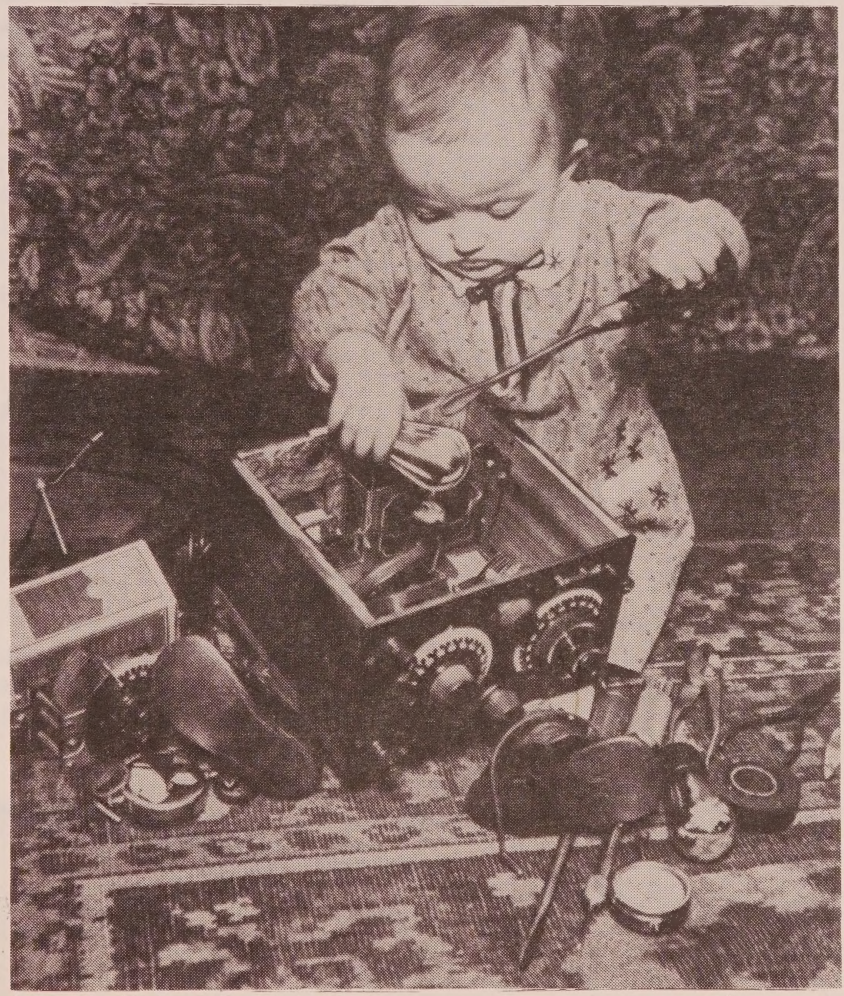
THE ANNOUNCER

SACRAMENTO HISTORICAL RADIO SOCIETY

VOL. 14 - NO. 1 SPRING 1990



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SACRAMENTO HISTORICAL RADIO SOCIETY

A NON-PROFIT ORGANIZATION FOUNDED IN 1975 TO COLLECT, RESTORE & PRESERVE RADIOS OF HISTORICAL, VINTAGE & EDUCATIONAL VALUE

THE ANNOUNCER

SHRS PUBLICATION

VOL. 14 - NO. 1 SPRING 1990

* * *

1990 OFFICERS

Donald E. Steger, President
Allen Zellmer, Vice President
Gayle McMahon Rowland, Secretary
Charles Ibe, Treasurer
William L. Howell, Program Chairman
M. M. Otis, Editor

* * *

MEETINGS...

Members meet the 3rd Wednesday of each month. Public is invited. Meetings start at 7 p.m. and end promptly at 9 p.m.

Meeting place - SMUD Foothill Service Center - Room D - 5026 Don Julio, North Highlands CA (corner of Elkhorn and Don Julio) approx. 1 mile west of I-80.

For more information, write to... Secretary, P. O. Box 16212, Sacramento CA 95816-9998.

SHRS ACTIVITIES

1990 OFFICERS...MEETINGS...DUES

Carrying on the charge of radio history preservation and assisting collectors this year are: Don Steger, president; Al Zellmer, vice president, Charles Ibe, treasurer; Gayle McMahon Rowland, secretary; Norm Wilson, immediate past president.

MARK MEETING DATES ON YOUR CALENDAR...the third Wednesday of each and every month: March 21, April 18, May 16, June 20, July 18, August 15, September 19, October 17, November 21, December 10. Time--7 to 9 p.m.

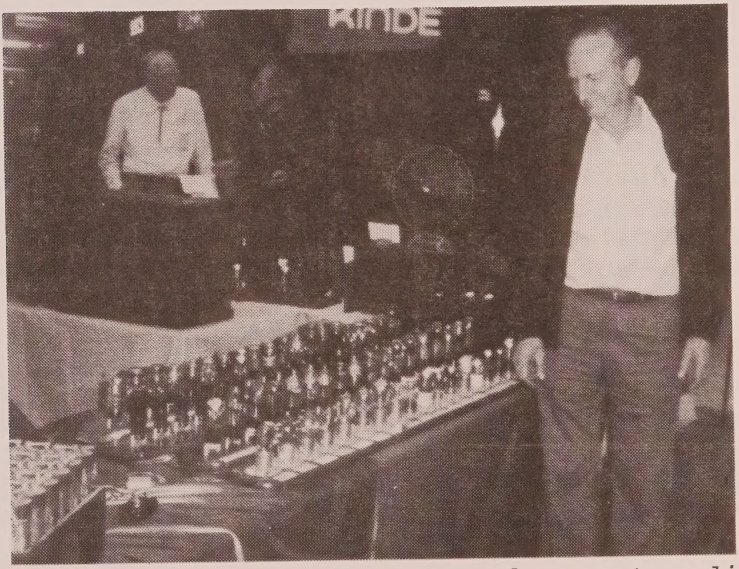
The new decade of the 90s brings great opportunities for expansion. The club was formed in 1975 and has functioned continuously for these past 15 years. However, it was never incorporated as a non-profit entity. That is the first goal and member John Maxey is preparing a constitution and by-laws.

Dues run on a calendar-year basis. It is well into the new year and quite a few members have overlooked renewing. New membership cards are being issued this year. If you haven't received yours, check to see if you paid. You received a statement...come to the next meeting with your check ready...or put it in the mail to SHRS, PO Box 162612, Sacramento CA 95816-9998.

Bill Howell is again program chairman and the man needs your help. If you have a suggestion and/or contact with a program provider, call Bill at (916) 487-6384.

WELCOME BACK...Mary and Harold Rowlette, members some years back and who have been away for some time.

SHRS MEMBER Harrison Fait is shown here explaining schematic of superheterodyne sets. Harrison underwent hip replacement surgery in February. He would welcome hearing from members. Call Bill Howell--487-6384 for address and phone if you don't have a roster.



TUBES GALORE were feature of recent radio show mounted by SHRS at Sunrise Mall, Citrus Heights. Bill Howell tells tube story to show visitors.

RADIO DISPLAY TEACHES HISTORY

This past February, SHRS set up its annual antique radio show in Sunrise Mall in Citrus Heights over Presidents weekend.

Displays were in seven categories starting with early wireless (pre-1926) and the first electric AC sets (1926-1934) and ending with the post World War II era in the 1950s, plus components and early novelties and plastics. No, plastics aren't that new--the synthetic resin known as Bakelite was invented about 1906.

Thousands of visitors stopped to look and learn about history. It was the development of radio that let the people of the world talk to each other and made us all neighbors.

Gayle McMahon Rowland, SHRS secretary, here passes on some visitor reactions.

"I told my friend here there was going to be old radios to see." Answered the friend, "Yeah, but I didn't think it would be this interesting."

"See that tube? I told you it is a collectible...and you called it "junk!'"

Pointing to an old radio..."I had one of those but tossed it out. Sure wish I hadn't."

"Hey, I just talked to that old guy--he's awesome!" (A teenager referring to Al Zellmer.)

"Daddy, is that the kind of radio Grandpa had?" "That's the kind I had! (aside to wife) ...talk about feeling ancient."

"I know my radio with the magic eye was a 1918 because my father said so." (*Ed note--the electron-ray tube, also called magic eye, came into general use around 1937-38.*)

(Cont'd on Pg. 17)

EIMAC, SUPER POWER TUBE PIONEERS

By NORMAN WILSON

I first met Bill Eitel in the early 1970s when I was first elected as the section communications manager of the Sacramento Valley Section of the American Radio Relay League. He was not in the best health at that time and seemed to get worse as time went on. I had not heard or seen him in several years but often thought of him with regard to my interest in vacuum transmitting tubes.

The ARRL announced Bill's death this February. He will long be remembered as one of the pioneers in high power tube development.

In 1934, William Eitel and Jack McCullough, amateur calls W6UF and W6CUH respectively, founded Eitel-McCullough or EIMAC and started producing high power, high frequency, transmitting tubes.

Their first effort was called the 150T and was rated at 150 watts dissipation. Its plate was made of tantalum metal and its grid was of platinum alloy. This tube was made for the amateur market and was a sensation. It had everything. It could operate at very high voltage and do so well into the VHF band. At twice the rated dissipation, its plate would run white hot with no ill effects on the tube.

This tube was a bit large for the average ham, so they built a scaled down version of the 150T and named it the 50T. It was another winner and EIMAC was fast establishing itself as a leader in the field.

Since this company was run by hams with the ham market in mind, they were always open to

(Cont'd on Pg. 15)

SCENIC SWEENEY RIDGE SITE OF DRILL

Each year, on the fourth full weekend in June a nationwide amateur radio field-day exercise takes place. It is sponsored by the American Radio Relay League (ARRL).

Site of the exercise is historic Sweeney Ridge from which the Gaspar de Portola expedition first sighted San Francisco Bay in 1769. The mountain ridge is located in scenic Pacifica, just a few miles west of the San Francisco International Airport.

For more information on this year's field day, contact Earl Brown, WB6JAF, at PO Box 370587, Montara CA 94037.

The Sweeney Ridge site was purchased many years ago by the city of Pacifica and is now administered by the National Park Service.

The Coastside Amateur Radio Club, a Radio Amateur Civil Emergency Service or RACES club, sponsored by the City of Pacifica, is conducting the field-day exercise. It has used Sweeney Ridge since 1968.

The exercise starts on Saturday morning and ends on Sunday afternoon. It is an around-the-clock competitive exercise using amateur radio equipment which is available for emergency communications. The purpose of the exercise is to "test" the responsiveness of amateur radio operators and their equipment for emergencies in an enjoyable way.

Set up are four complete operating stations, some capable of reaching around the world while others are used mostly for local communication within a 100 to 200-mile radius.

(Cont'd on Pg. 14)

A MEDIUM WELL LOWER LIP...

By NORMAN WILSON

In 1934, my father was a young ham radio operator who just got his call--W6LLA. His best friend across the street had received the call--W6LID. Now, all he needed was a transmitter.

Don Wilson, W6LLA

He wanted to operate AM on the 160 meter band (1850Khz) but this was 1934 and money was in short supply.

Being a good scrounger, a trait he passed down to me, he made a raid on his mother's kitchen and ripped off one of her bread pans. On this, he mounted a 45 tube from an old broadcast set, mounted a coil and a crystal. An outboard power supply completed the transmitter but without modulation. Modulation transformers were expensive and the speech equipment was five times as complex as the transmitter.

But there was a cheap and dirty way to modulate such an oscillator so another raid was planned. This time the victim was old Mother Bell, the phone company.

The elements in the phones were carbon microphones. If you soldered a wire across the element, looped the wire around the coil and yelled loud enough, some modulation was present on the carrier.

(Cont'd on Pg. 9)

LOWER LIP -*(Cont'd from Pg. 8)*

Results were usually poor and you had to be careful. If you got too excited trying to work someone and got too close to the microphone, the RF energy in the coil, loop and microphone would burn holes in your lip. Even five watts of power will get you and there is nothing worse than the smell of RF burned skin, especially if the skin is yours and directly under your nose.

If the element didn't work well, maintenance consisted of taking the element and rapping it on the table to loosen up the carbon granules or go find another pay phone.

After much adjustment and sore tonsils, W6LLA finally got someone in a nearby town to hear him. He was then a real ham.

Later rigs were more elaborate and had proper modulation. He added a very expensive RME 69 receiver that 23 years later, in 1960, I was to use in my first station, WV6JVD.

W6LID died 50 years ago and W6LLA died 20 years ago. But the log books I still have and they record the trials of a young man trying to be heard across town with the frequent log notation: "He couldn't copy me. #

BULLETIN BOARD

FOR SALE--10 consoles; 10 to 12 table models, range from mid-1930s to late 1940s. Phone (916) 487-6384.

FOR SALE--1927 RCA console/record player; asking $700; will negotiate for safe home. Phone (916) 482-3271 (hm); 486-2121 (wk).

RADIO operator at Hensley Field, Texas during World War II. Note the manual Royal typewriter and plug-in switchboard. Phto courtesy US Army Air Forces.

PARTS, BOOKS SOURCES

The following information was compiled by Gayle McMahon Rowland from her McMahon Vintage Radio files. When asking for information from these sources, send a large SAS envelope.

OUT OF PRINT BOOKS: R. W. Randall, 1263 Lakehurst Rd., Livermore CA 94550

COMMUNICATION RECEIVERS: H. L. Chadbourne, 530 Midway St., LaJolla CA 92037. Roy T. Tucker, 14109 Whiterock Dr., LaMirada CA 90638.

CRYSTAL RADIO RECEIVERS: Modern Radio Laboratories, E. Osterhoudt, PO Box 1477, Garden Grove CA 92642. Radios that Work for Free, Hope & Allen Publishing Co., PO Box 535, Belmont CA 94002.

EMERSON RADIOS: Ray Miller, PO Box 1711, Oceanside CA 92054.

GRANDFATHER CLOCK RADIOS: K. Manthei, PO Box 1071, Concord CA 94522.

MAGNAVOX PARTS DIVISION: 2649 Maricopa St., Torrance CA 90505.

SCOTT PARTS: Norman Braithwaite, PO Box 2443, Redding CA 96099

AC PARTS: Gilbert Smith, 248 So. 36th St., San Diego CA 92113

MIRRORED GLASS RADIOS: Ed Sage, 1781 Helene Court, Benicia CA 94510

INTERSTAGE AUDIO TRANSFORMERS: Robert Goodman, 7943 Ponce Ave., Caoga Park CA 91301

(Cont'd on Pg. 12)

SOURCES - (Cont'd from Pg. 11)

HORN SPEAKERS: Floyd A. Paul, 1545 Raymond St., Glendale CA 91201.

KNOBS: Larry Bordonaro, 5744 Tobias, Van Nuys CA 91411.

WIRE: B. Goodman, 7943 Ponce St., Canoga Park CA 91304.

YEARY COMMUNICATIONS: 12922 Harbor, #800A, Garden Grove CA 92640.

SUPPLIES: Stan Lopes, 1201-74 Monument Blvd., Concord CA 94520.
Sue Coulter, 4200 Prince St., Bakersfield, CA 93301.
Bob Fabris, 3626 Morrie Dr., San Jose CA 95127.

ANTIQUE RADIO T-SHIRTS: Visual Concern, PO Box 2661, Fort McArthur St., San Pedro CA 90731.

WORKS ON ANTIQUE RADIOS: Placerville TV & Electronics, 54 Main St., Placerville CA 95667
Fava TV Service, Julius Fava, PO Box 661041, Sacramento CA 95866. Phone (916) 481-3376.

PARTS: HSC Electronic Supply, 5549 Hemlock, Sacramento CA 95841. Phone (916) 338-2524.
Marvacs Electronis (was California Radio), 2537 Del Paso Blvd., Sacramento CA 95815. Phone (916) 922-6531.

AUTO RADIOS: Vintage Sound, 2525 Connie Dr., Sacramento CA 95815. Phone (916) 929-8274.

BOOK INFORMATION, ETC: McMahon Vintage Radio, PO Box 1331, North Highlands CA 95660. Phone (916) 332-8262.

(Cont'd on Pg. 13)

SOURCES - *(Cont'd from Pg. 12)*

AUTHOR OF VINTAGE RADIO BOOKS: Morgan McMahon, 26356 Eastview Court, San Juan Capistrano CA 92675 (N6VY).

ANTIQUE RADIO CLASSIFIED: John Terrey, PO Box 2, Carlisle MA 01741. Phone (508) 371-0512.

THE HORN SPEAKER: Jim Cranshaw, RT 3, Box 79, Canton TX 75103.

RADIO AGE: 636 Cambridge RD, Augusta GA 30909.

HORN SPEAKER ENCYCLOPEDIA: Floyd Paul, 1545 Raymond St., Glendale CA 91201.

VINTAGE RADIO BOOKS: Antique Electronic Supply, 688 West 1st St., Tempe AZ 85281. Phone (602) 894-9503.

ANTIQUE RADIOS, RESTORATION & PRICE GUIDE: GUIDE TO OLD RADIOS: David Johnson, PO Box 226, Ettrick WI 54627.

THE VESTAL PRESS, LTD: (Catalog $2 refundable), PO Box 97, 320 No. Jensen Rd., Vestal NY 13850. Phone (607) 797-4872.

ENCYCLOPEDIA OF COLLECTIBLES: Time Life. 541 No. Fairbanks Court, Chicago, IL 60611

PUETT ELECTRONICS: J. W. F. Puett (Insurance appraisals, books, parts, tube manuals), PO Box 28572, Dallas TX 75228.

ARS ENTERPRISES: Hartford Beitman (radio diagrams), PO Box 997, Mercer Island, WA 98040.

RADIOGRAPHICS: Robert Morgan (K8RBV) (rare books), PO Box 5483, Willowick OH 44094.

(Cont'd in future issue)

KEN-RAD crystal set, circa 1920. This unit came as a kit and was in the original factory carton when SHRS president Don Steger acquired it. Photo by Davis Morris, courtesy of The SACRAMENTO UNION.

SWEENEY RIDGE - *(Cont'd from Pg. 7)*

Methods used include voice, Morse code and computer communications including both "packet" and "teletype" modes.

Three major portable antenna set-ups are erected using just stakes and ropes. About eight to 10 operators are on site, day and night. Some 20 to 25 members usually join in although no more than 10 or so members and guests are normally present at any one time. Civil defense and other emergency generators are used to provide electrical power for the equipment. #

TUBE PIONEERS - *(Cont'd from Pg. 6)*

new ideas from friends and potential customers for new products. One local ham, Reginald Tibbitts, W6ITH, recalls getting EIMAC to build him a special tube for his high power class A modulated, transmitter. It was called the 500T and was a monster.

They soon realized that their tubes were very conservative in their ratings. They worked just fine at temperatures that would melt most tubes. After making some minor modifications, the new series of tubes changed the 150T to the 250T, the 50T to the 100T and the 500T eventually became the 750T.

In later years, the designation TH and TL was used instead of just T to designate tubes that were available with high and low amplification factors. This system is still in effect today.

The shape of these tubes is considered to be the classic shape of a triode transmitting tube and was copied by many other manufacturers. EIMAC was later to use it on larger types up to the 200T.

Tube collectors and historians will always remember that first perfect triode with its beautiful shape and proportions, the Venus de Milo of transmitting tubes , and the company that became synonymous with super power--EIMAC. #

ON THE GO...VISIT THESE MUSEUMS

COLLECTION OPEN TO PUBLIC, Leonard Cartwright, 113 Sea Terrace Way, Aptos, CA 95003, (408) 662-2977. Old meters, instruments,

FOOTHILL COLLEGE ELECTRONICS MUSEUM, 12345 El Monte Road, Los Altos Hills, CA 94022. Over 400 radios, from crystal to modern.

YE OLDE TRANSMITTING TUBE MUSEUM, PO Box 97, Crescent City, CA 95531. (707) 464-6470.

CLUBS FOR COLLECTORS

ANTIQUE RADIO CLUB OF AMERICA, William Denk, 81 Steeplechase Road, Devon, PA 19333. National and regional.

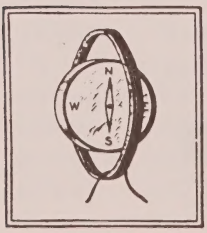
ANTIQUE WIRELESS ASSOCIATION, PO Box E, Breesport, NY 14816. National club and museum.

CALIFORNIA HISTORICAL RADIO SOCIETY, Paul Bourbin, 25 Greenview Court, San Francisco CA 94131.

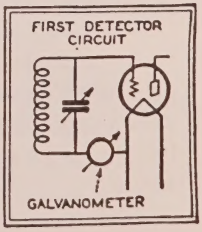
SACRAMENTO HISTORICAL RADIO SOCIETY, PO Box 162612, Sacramento CA 95816-9998.

SOUTHERN CALIFORNIA ANTIQUE RADIO SOCIETY, 1545 Raymond Avenue, Glendale CA 91201

COAST SIDE AMATEUR RADIO CLUB, Earl Brown, PO Box 370587, Montara CA 94037.



Galvanometer that is easily constructed for testing the coupling between oscillator and first detector. The coil of wire should "hug" the compass closely, hooking the galvanometer into the circuit. Adjust coupling to a point just below the point where the grid of the first detector draws current



WORLD'S FIRST REGULAR RADIO BROADCAST

The world's first regular radio broadcast programs began in 1909 on the top floor of the Garden City Bank Building at South First and San Fernando Streets in San Jose, California. (The building is long gone.)

Set up by Charles David Herrold in the days before call letters, he announced simply, "This is San Jose." Once call letters were set up, the station went through a series...FN, 6XE, 6XF and SJN. Later, it received a commercial license as KQW. Columbia Broadcasting System bought the station in 1949 and the call letters were changed to KCBS and became the most powerful station located in San Francisco.

To create an audience when he first went on air, Herrold build receiving sets and gave them away free. His wife, Sybil, became the first lady disc jockey. #

TEACHING HISTORY - *(Cont'd from Pg. 5)*

"These old radios don't work, do they?" Yes, they really do.

"How much is my radio worth?" Heard over and over. One woman, when questioned as to make, model, age, wood, phonograph, didn't know any of the above but insisted "...it stands this high; how much is it worth?"

One man drove over from the Bay area for this year's show and after some two hours of examining everything carefully, said, "It was well worth the drive!"

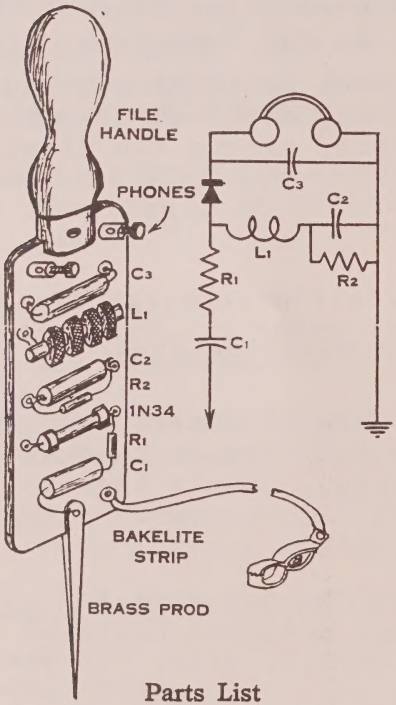
A student said, "I'm gonna do my science project on radio stuff." Gayle gave the youngster her phone number and offered to help. This one young person made all the work of putting the show together worthwhile. #

IDEAS FROM 40s STILL PRACTICAL

Reprinted from Nov.-Dec. 1947 *SYLVANIA NEWS*.

The sketch below while it looks a lot like an ice pick is a very convenient form in which to make a crystal probe. This unusual arrangement was sent to us by Mr. V. R. Krause of Johannesburg, South Africa, who says it is worth its weight in gold for testing sets, as it will work on either R.F. or audio and requires no batteries.

SIGNAL TRACER PROBE



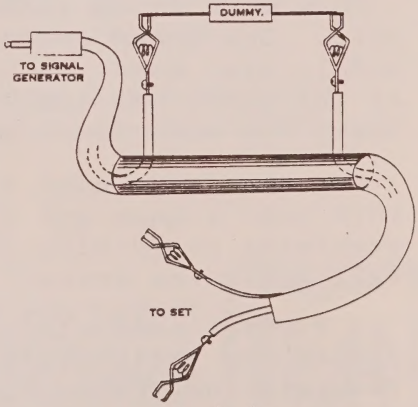
Parts List

R1	50,000 Ohms
R2	100,000 Ohms
C1	.01 uf.
C2	.001 uf.
C3	.002 uf.
L1	2.5 mh.

In operation with R.F. applied, L1 is the load as R2 is bypassed, while on AF the resistance of L1 is relatively high and R2 becomes the load.

* * *

Convenient Dummy Antenna Connection: I find that most signal generators come with a single shield cable for output with alligator clips on ends (one on shield or one on hot wire that carries signal) and when using a dummy antenna as described in the instructions you have to add a condenser or a resistor in series and it is very inconvenient. So if you take a metal tube and drill a hole in the side of the tube near each end bringing out the hot wire and put on two alligator clips, then solder shield to tube at both ends, you can change dummy antennas very fast and not have a lot of parts in your way and no long leads which we don't want on high frequency work. —Bud's Radio Service, St. Louis, Missouri.



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GOALS OF SACRAMENTO HISTORICAL RADIO SOCIETY

PRESERVE AND DISPLAY RADIO HISTORY OF THE WEST

The primary goal of SHRS is to collect, restore, and preserve the early equipment and history of the growth of this technology in Northern California. The final objective is to establish a permanent public display in our State capital.

Periodically, members' collections are put on display in area shopping malls for public enjoyment and education.

Yearly membership dues--$10...foreign--$12.

TO: SACRAMENTO HISTORICAL RADIO SOCIETY
PO Box 16212, Sacramento CA 95816-9998

I enclose dues of $____. Date _____

My interest is...(check one or more)

___ pre-1920 (invention and development period of radio)

___ 1920-30 (battery period of radio)

___ 1927-1942 (pre-WWII - AC period and era of "classic" styling)

___ 1946 on (post WWII)

___ I have a general interest in all categories of collecting

___ specialty (radio tubes, telegraph, etc.)

___ broadcasting ___ other interest (fill in here) _____

___ personal background (fill in next line)

_____

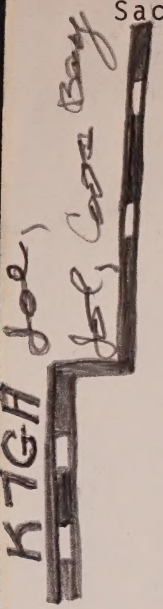
NAME_____

ADDRESS_____

CITY_____ZIP_____

PHONE_____

SACRAMENTO HISTORICAL RADIO SOCIETY
P. O. Box 162612
Sacramento CA 95816-9998



Albert Jones
PO Box 97
Crescent City CA 95531

FIRST CLASS